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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/621,463	07/18/2003	Kyung-Mo Yu	P-0563	1141

34610 7590 03/21/2007  
KED & ASSOCIATES, LLP  
P.O. Box 221200  
Chantilly, VA 20153-1200

EXAMINER
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NGUYEN, TU X

ART UNIT	PAPER NUMBER
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2618

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/21/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/621,463	<b>Applicant(s)</b> YU, KYUNG-MO	
	<b>Examiner</b> Tu X. Nguyen	<b>Art Unit</b> 2618	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 22 February 2007.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-28 is/are rejected.
- 7) ☒ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)             | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date: _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date: _____  | 6) <input type="checkbox"/> Other: _____                                    |

## DETAILED ACTION

### *Response to Arguments*

Applicant's arguments with respect to claims 1-28 have been considered but are moot in view of the new ground(s) of rejection.

### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

Claims 1-28, are rejected under 35 U.S.C. 102(e) as being anticipated by Harada et al. (US pub. 2003/0103577).

Regarding claims 1 and 15, Harada discloses a synchronization detecting method of a mobile communication system, comprising:

comparing a synchronization detection threshold value set for each section of a time period in which a quality of a pilot is measured (see par.025 lines 1-12), and

a bit error rate calculated for each section (see par.0252); and

judging a synchronization detection based on a result of said comparing (see par.025 lines 1-12).

Regarding claims 2, 5, 7, 17-21, Harada discloses if a pilot bit error rate calculated in a certain section of said time period is smaller than the synchronization detection threshold value set for the section, it is judged to be in synchronization status, and if a pilot bit error rate calculated for every section of said time period is not smaller than a synchronization detection threshold value set for every section, a pilot bit error rate calculated for a first section is compared with a certain synchronization failure threshold value, and then, if the pilot bit error rate of the first section is greater than the synchronization failure threshold value, it is judged to be synchronization failure (see par.021).

Regarding claims 3, 8, 16 and 22, Harada discloses the time period for measuring the pilot quality includes a plurality of frames (see par.0261) or a plurality of slots.

Regarding claims 4 and 26, Harada discloses if the result of the comparison indicates the pilot bit error rate is smaller than the synchronization detection threshold value set for the section, synchronization is indicated (see par.021).

Regarding claim 6, Harada discloses an uplink synchronization detecting method of a mobile communication system comprising:

calculating a pilot bit error rate (BER) of an uplink allocated to a finger, for a first section; comparing the first pilot BER calculated for the first section with a first synchronization detection threshold value set for the first section; judging the uplink is in synchronization status when the first pilot BER is smaller than the first synchronization detection threshold value (see par.021, 0129, par.025 lines 1-12);

calculating a second pilot BER of the uplink for a second section when the first pilot BER is not smaller than the first synchronization detection threshold value; comparing the

second pilot BER calculated for the second section with a second synchronization detection threshold value set for the second section; and judging the uplink is in synchronization status when the second pilot BER is smaller than the second synchronization detection threshold value (see par.021, 0130, par.025 lines 1-12).

Regarding claims 9-11 and 23-24, Haradaand disclose the first and second sections and a prescribed numbers of frames to be accumulated to the first section (see par.0129-0130).

Regarding claim 12, Harada disclose a length of the section for calculating the pilot BER corresponds to the synchronization detection threshold value (see par.021).

Regarding claims 13 and 27, Haradaand discloses a length of the section for calculating the pilot BER decreases, the synchronization detection threshold value decreases (see par.0129-0130).

Regarding claims 14 and 25, Harada discloses the first synchronization detection threshold value is smaller than the second synchronization diction threshold value (see par.0129-130).

Regarding claim 28, Harada discloses wherein the system is a base station (see par.0021).

### **Conclusion**

Any inquiry concerning this communication or earlier communications from the examiner should be directed Tu Nguyen whose telephone number is 571-272-7883.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Urban, can be reached at (571) 272-7899. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



March 14, 2007